

SFUND RECORDS CTR  
47591**FAX****Date** 02/16/98**Number of pages including cover sheet:** 7

**TO:** A MacDonald  
Regional Board  
**Fax Phone** 916-255-3015  
D Austin  
DTSC  
**Fax Phone** 916-255-3696  
C Berrey  
US EPA  
**Fax Phone** 415-744-1796

**FROM:** Cindy L. Caulk  
Aerojet Environmental  
Operations  
P.O. Box 13222  
Bldg. 2019, Dept. 0330  
Sacramento, CA 95813-  
6000  
**Phone** 916-355-2601  
**Fax Phone** 916-355-6145

**REMARKS:** ☐ Urgent ☒ For your review ☐ Reply ASAP ☐ Please Comment

Alex, Duncan and Charles:

Attached is the updated perchlorate toxicity studies summary which you requested Mike Girard provide you at our last technical meeting. We have only provided those pages that reflect changes. We can talk about this at our next technical meeting, 25 February. Mike will be at our technical meeting and he will have attended another PSG meeting before then.

Cindy

# Perchlorate Summary

## Toxicity Studies In Progress

Michael Girard  
Aerojet Environmental Operations

February 16, 1998

## Perchlorate Summary

<u>Toxicology Studies</u>	<u>Contractor</u>	<u>Start Date</u>	<u>Protocol Status</u>
90 Day Rat Study	Springborn	September 97	On TERA web site
Neurobehavioral Developmental	Argus	September 97	On TERA web site
Receptor Kinetics (Lit. Search)	USAF	September 97	NA
SEG II Dose Range	Argus	December 97	On TERA web site
SEG II Developmental (rabbits)	Argus	February 98	Reviewed
Absorption, Distribution, Metabolism and Elimination (ADME)	USAF	TBD	Review in Progress
Mutagenicity / Genotoxicity	Mantech	January 98	Reviewed
Reproductive (2 Generation)	Argus	January 98	On TERA web site
Immunotoxicity	Univ. South Carolina	February 98	Review in Progress
Mechanistic Developmental	EPA	TBD	Review in Progress
Review Human Studies (Germany)	USAF	December 97	NA

# Perchlorate Summary

## Review Team for Toxicology Study Protocols

Joe Brown	California EPA, Office of Environmental Health Hazard Assessment
Dan Caldwell	Exxon Biomedical
Dorothy Canter	U.S. EPA, Office of Solid Waste and Emergency Response
Charles Capen	Ohio State University, Department of Veterinary Biomedicine
John Christopher	California EPA, Department of Toxic Substances Control
Eric Clegg	U.S. EPA, National Center for Environmental Assessment
Kevin Crofton	U.S. EPA, Office of Research and Development
Vicki Dellarco	U.S. EPA, Office of Water
Marvin Friedman	Cytec Industries, Inc.
Greg Harvey	U.S. Air Force, Wright-Patterson Air Force Base
Annie Jarabek	U.S. EPA, National Center of Environmental Assessment
Kevin Mayer	U.S. EPA, Region IX
David Morry	California EPA, Office of Environmental Health Hazard Assessment
Brenda Pohlmann	Nevada Division of Environmental Protection
Mary Jane Selgrade	U.S. EPA, Office of Research and Development
Marilyn Underwood	California Department of Health Services

Michael Girard  
Aerojet Environmental Operations

February 16, 1998

# Perchlorate Summary

<u>Study</u>	<u>Sponsor</u>	Calendar / \$000				<u>Total</u>
		1 Qtr 1998	2 Qtr 1998	3 Qtr 1998	4 Qtr 1998	
90 Day Rat Study	USAF					
Neurobehavioral Developmental	USAF					
Receptor Kinetics (Lit. Search)	USAF					
SEG II Dose Range (rabbits)	PSG	\$27				\$27
SEG II Developmental	PSG	\$74			\$30	\$104
Absorption, Distribution, Metabolism and Elimination (ADME)	USAF					
Mutagenicity / Genotoxicity	USAF					
Reproductive (2 Generation)	PSG	\$98	\$97	\$97	\$97	\$389
Immunotoxicity	DOD					
TERA Peer Review	PSG	\$15	\$15	\$30	\$50	\$110
Mechanistic Developmental	DOD	?	?			
Review Human Studies (Germany)	PSG	?	?	?	?	?
<b>PSG Total</b>		<b>\$214</b>	<b>\$112</b>	<b>\$127</b>	<b>\$177</b>	<b>\$630</b>

# Perchlorate Summary

## Schedule

Studies Begin (Springborn/Argus)	9 / 30 September 1997
Final reports from lab contractors*	30 April 1998
NCEA Internal Review**	August 1998
EPA External Review**	September 1998

\*Includes 90 Day Rat Study and Neurobehavioral Developmental Study

\*\*Federal Perchlorate Steering Committee (PSC) will create and monitor a new schedule.  
Release date for new schedule has not been determined. Next PSC meeting is scheduled for February 19, 1998 at Research Triangle Park in North Carolina.

GIRARD, MICHAEL F

**From:** Major Dan Rogers

**Sent:** Friday, January 30, 1998 12:43 PM

**To:** Jarabek Annie; Grevatt, Peter (OSWR); Osinski, Michael; Mayer Kevin; Urbansky Ed; VANLANDINGHAM David; Hurley, Jim; GIRARD, MICHAEL F; Dollarhide Joan; Mattie Dave; Dourson Mike; Hicks, Fred; Yaeger, Kathleen; Bankert, Karen; Hoffmann, Lee; Blaha Frank; Book, Steve; Lamm, Steve; Crofton Kevin; Jones, Steve; Long Cornell; Taft, Jim; Mercer, Mark; Manibusan, Mary; Canter Dorthy; Newton, Murray; Brown, Kevin - Utah DEQ; Howell, Rufis; Pohlman Brenda; Spath, Dave; Rogers, MajorDan

**Cc:** Brink, Deborah; Farland, William H.

**Subject:** Perchlorate Steering Committee Meeting (February)

Announcement on the next Perchlorate Steering Committee Meeting, 19 February 1998, RTP:

The first full working meeting of the Perchlorate Steering Committee will take place at 10:00 Eastern time on Thursday, February 19th. For those attending in person, the location is RTP, in Raleigh Durham, NC. Annie Jarabek will be hosting those who can attend and make arrangements for the necessary conference lines for those attending by phone.

Prior to this meeting, each of the sub committees is responsible for getting the draft information to Annie so she can complete the task of assembling the report to Congress. That information is due 13 February. I mentioned the other day that I would send the language from the Congressional Record on what is due to Congress in order to help with the report. Here it is:

"In addition to the funds specifically provided for the perchlorate research within the Crofton-Redlands Plume, the conferees direct the agency to work with the Department of Defense, the National Institute of Environmental Health Sciences, and other appropriate federal and state agencies to:

1. assess the state of the science on the health effects of perchlorate on humans and the environment and the extent of perchlorate contamination of our nation's drinking water supplies, and
2. make recommendations to the House and Senate Committees on appropriations within six months of enactment of this Act on How this emerging problem might be addressed"

To the best of my knowledge, these are the open agenda items and a suggested format for the meeting:

- Opening Comments
- Further discussion on subcommittee goals and expectations
- Sub Committee Reports
  - Analytical
  - Toxicology
  - Treatment Technology
  - Eco-Toxicology
- Discussion of the report to Congress

- Occurrence Data Milestones
- Peer Review process
  - the progress on securing funding and initiating the contract
  - schedule and
  - Identification of stakeholder groups
- Educational Symposium on Perchlorate (1-3 April 1998 Salt Lake City, Utah)
- Additional Membership to the Sub Committees

Our goal is to get through the meeting in an hour and a half give or take fifteen minutes. Brevity and focus is needed, please.

If you intend to attend via phone, please e-mail me (drogers@jag.af.mil) as soon as possible so I can get the count of all the lines we will need for the meeting.

If you have any suggestions on agenda topics you would like to see included, please e-mail them to me and I'll send out a final notice. Also, please check the address listing for this e-mail and see if there is anyone else who should be receiving it. Thanks, MajorDan